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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.  | CONFIRMATION NO. |
|-----------------|-------------|----------------------|----------------------|------------------|
| 10/668,444      | 09/23/2003  | Jiang Hsieh          | 135487CT (15051US01) | 2336             |

23446 7590 03/24/2006

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| EXAMINER |
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KIKNADZE, IRAKLI

|          |              |
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| ART UNIT | PAPER NUMBER |
|----------|--------------|

2882

DATE MAILED: 03/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/668,444

Applicant(s)

HSIEH ET AL.

Examiner

Irakli Kiknadze

Art Unit

2882

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-11 and 16-22 is/are allowed.
- 6) ☒ Claim(s) 12, 14 and 15 is/are rejected.
- 7) ☒ Claim(s) 13 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 June 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. In response to the Office action dated October 14, 2005 the Amendment has been received on January 10, 2006.

Claim 4 has been amended.

Claims 1-22 are currently pending in this application.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 12 and 14 are rejected under 35 U.S.C. 102(e) as being anticipated by Baharav et al. (US Patent Application Publication 2003/0001078 A1).

With respect to claim 12, Baharav teaches a method for error detection in the image detector array, the method comprising:

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comparing average readings between adjacent cells over all projection views for a channel to identify one or more malfunctioning cells ([0035]).

With respect to claim 14, Baharav teaches storing position of the malfunctioning cell ([0035], lines 16-25).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Baharav et al. (US Patent Application Publication 2003/0001078 A1) as applied to claim 12 above, and further in view of Suzuki (JP 11027523 A).

With respect to claim 15, Baharav teaches claimed invention except for generating an alert identifying the one or more malfunctioning cells. Suzuki teaches a method for detecting and identifying the malfunctioning cells in an image detector array comprising generating an alert by alarm generating unit (127) identifying the one or more malfunctioning cells (see abstract). It would have been obvious to one of ordinary skill in art at the time the invention was made to generate the alert as suggested by Suzuki in the method of Baharav, since such a modification would inform an operator that a detector element, such

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as, a cell, detector or DAS channel, and/or a detector array should be repaired or replaced.

***Allowable Subject Matter***

6. Claims 1-11 and 16-22 are allowed.

7. Claim 13 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. The following is a statement of reasons for the indication of allowable subject matter:

With respect to claim 1, prior art fails to teach or make obvious a method for data acquisition comprising an adjusting an initial estimate according to an accuracy of estimates performed on at least one of a nearest pair of neighboring detector rows, wherein each member of the pair of rows is an equal distance above or below the detector row with the malfunctioning cell, where at least one of the members has a good cell as claimed in combination with all elements of the claim 1. Claims 2 and 3 are allowed by virtue of their dependence.

With respect to claim 4, prior art fails to teach or make obvious a method for data acquisition comprising an adjusting step calculating a weight average of estimates from the pairs of neighboring detector rows as claimed in combination with all elements of the claim 4. Claims 5-11 are allowed by virtue of their dependence.

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With respect to claim 13, prior art fails to teach or make obvious a method for error detection an image array comprising measuring a difference between a first reading from a detector cell and at least second and third readings from neighboring cells; and using the difference between the first, second, and third readings to identify a malfunctioning cell as claimed including all of the limitations of the base claim and any intervening claims.

With respect to claim 16, prior art fails to teach or make obvious an imaging system comprising an image processing system, wherein the image processing system adjusts the signal based on a weighted average of first and second difference signals produced using the method of interpolation with at least two neighboring rows in the image detector array in the projection view as claimed in combination with all elements of the claim 16. Claims 17-20 are allowed by virtue of their dependence.

With respect to claim 21, prior art fails to teach or make obvious a method for reducing errors in image data acquisition comprising: identifying at least one of a malfunctioning channel and malfunctioning an application specific integrated circuit (ASIC) and applying a correction scheme to reduce an error due to the at least one of the malfunctioning channel and a malfunctioning ASIC as claimed in combination with all elements of the claim 21. Claim 22 is allowed by virtue of its dependence.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should

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preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Response to Arguments***

9. Applicant's arguments, see pages 9-15, filed January 10, 2006, with respect to claims 1-3, 12-15, 21 and 22 have been fully considered and are persuasive. The rejection of claims 1-3, 12-15, 21 and 22 has been withdrawn.

### ***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Liu (US Patent 6,118,846) teaches a process and associated apparatus for performing defective pixel correction in a radiation detector having plurality of radiation sensors arrayed in rows and columns (see abstract). Mendis et al. (US Patent Application Publication 2005/0030394 A1) teaches recording addresses of bad pixels and replacing the bad pixel value by another value (see abstract).

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Irakli Kiknadze whose telephone number is 571-272-2493. The examiner can normally be reached on 9:00-5:30.

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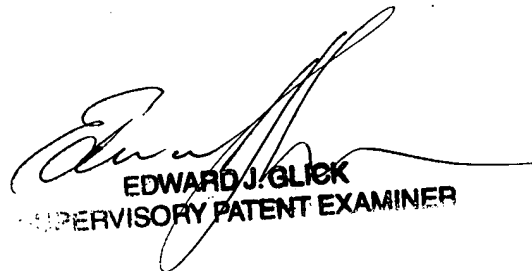
telephone number is 571-272-2493. The examiner can normally be reached on 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed Glick can be reached on 571-272-2490. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Irakli Kiknadze  
March 20, 2006

*IK*

  
EDWARD J. GLICK  
SUPERVISORY PATENT EXAMINER